

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

PRESSURE SPECIALIST, INC.)	
)	
Plaintiffs,)	
)	
vs.)	Case No. 18 C 7013
)	
NEXT GEN MANUFACTURING INC.)	
and CARL J. BONTA, JR.,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER

MATTHEW F. KENNELLY, District Judge:

This case pairs paintball and patent law. Pressure Specialist, Inc. has sued Next Gen Manufacturing Inc. and its owner, Carl Bonta, Jr., alleging that Next Gen's pressure regulator device infringes one of Pressure Specialist's patents. Next Gen seeks construction of several claim terms from the disputed patent. The parties submitted written briefs and a claim construction hearing was held on December 18, 2020. This opinion sets forth the Court's construction of the disputed claim language.

Background

Pressure Specialist manufactures and sells products for paintball guns, including the air-pressure regulator patented in U.S. Patent No. 7,059,343 (the '343 patent). The air-pressure regulator provides a connection between a compressed air canister and a paintball gun; it reduces the pressure of air from the canister so that it can enter the paintball gun to facilitate firing. Pressure Specialist alleges (and has alleged before, in a previous lawsuit) that Next Gen makes and sells pressure regulators that infringe upon

claim 1 of the '343 patent.

Claim 1 of the '343 patent recites "a direct acting pressure regulator" with the following limitations that are central to the parties' dispute: "a body having a high pressure inlet and defining a seat" and "a bonnet engageable with the body to define a piston chamber." '343 patent, col. 5 ll. 46-53. According to the patent's specification, the body element attaches to a pressurized air canister and has an inlet allowing pressurized air to enter the chamber of the regulator. The air passes through the body and enters the chamber through a feature called a "seat." Inside the regulator chamber, a piston alternates between a closed condition, in which it makes contact with the seat and stops gas flow into the regulator chamber, and an open condition, in which the piston does not make contact with the seat and allows gas flow into the chamber. Air entering the chamber passes through the piston and out of the regulator through the bonnet.

In September 2017, Pressure Specialist sued Next Gen, alleging that it was making and selling an air pressure regulator that infringed two of Pressure Specialist's patents, including the '343 patent. The parties settled in May 2018. In October 2018, Pressure Specialist brought the present lawsuit against Next Gen, alleging that a new pressure regulator sold by Next Gen (called the "Gen II") infringed the '343 patent. In December 2018, the parties stipulated to entry of a preliminary injunction, which this Court approved and entered. This order included a finding—agreed to by Next Gen—that Pressure Specialist had established a likelihood of success on the merits that the Gen II infringed the '343 patent.

Next Gen then began making and selling a new pressure regulator, the

HAYMKR. Pressure Specialist alleges that the HAYMKR also infringes the '343 patent. Pressure Specialist moved to find Next Gen in contempt and alternatively to amend the preliminary injunction order to bar the manufacturing and sale of Next Gen's HAYMKR product. The Court denied the motion. See *Pressure Specialist, Inc. v. Next Gen Mfg. Inc.*, 469 F. Supp. 3d 863 (N.D. Ill. 2020).

Next Gen now seeks construction of two terms appearing in claim 1 of the patent: (1) "A body having a high pressure inlet and defining a seat"; and (2) "A bonnet engageable with the body to define a piston chamber within the body and the bonnet, the bonnet having a regulated gas outlet." '343 patent, col. 5, ll. 50–53.

The Court analyzes the disputed claim terms in the order discussed by the parties in their briefs and listed by the parties in their joint claim construction chart. Because each disputed phrase has multiple proposed constructions, the Court will not list each one here, but instead will do so at the beginning of the section of the analysis discussing each phrase. The parties' proposed constructions are taken from the joint claim construction chart.

Discussion

The construction of a patent is a question of law for the Court. *Markman v. Westview Instrs., Inc.*, 517 U.S. 370, 387–88 (1996). The Court must discern the meaning of claim terms, which is "the ordinary and customary meaning . . . that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

Claim construction begins by considering the words of the claim. *Takeda Pharm.*

Co. v. Zydus Pharms. USA, Inc., 743 F.3d 1359, 1363 (Fed. Cir. 2014). As indicated, claim terms are generally given their ordinary and customary meaning, which is the meaning it would have to a person of ordinary skill in the field at the time of the invention. *Phillips*, 45 F.3d at 1313. The person of ordinary skill "is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Other claims in the patent "can also be valuable sources of enlightenment as to the meaning of a claim term," as claim terms "are normally used consistently throughout the patent." *Id.* at 1314. Differences among claims may, in some situations, be a useful guide to determining the meaning of a particular term. *Id.*

"The claims, [however], do not stand alone." *Id.* at 1315. They are part of a larger document, including the specification. *Id.* Thus claims "must be read in view of the specification, of which they are a part." *Id.* In some situations, the specification "may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Id.* at 1317. And in other situations, the specification may show a disclaimer of claim scope, which is likewise dispositive. *Id.* As a general rule, however, it is inappropriate to confine the claims to the specific embodiments of the invention described in the specification. *Id.* at 1323. That said, the distinction between using the specification to help interpret a claim and importing limitations from the specification into the claim "can be a difficult one to apply in practice." *Id.*

In certain circumstances, a court may also rely on evidence extrinsic to the claim, "which 'consists of all evidence external to the patent and prosecution history, including

expert and inventor testimony, dictionaries, and learned treatises." *Id.* at 1317 (quoting *Markman*, 52 F.3d at 980). But extrinsic evidence is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Id.* (internal quotation marks omitted). As a general rule, it is only where the intrinsic evidence is ambiguous that a court may rely on extrinsic evidence to construe a claim term. See, e.g., *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1360 (Fed. Cir. 2013).

A. "A body having a high pressure inlet and defining a seat"¹

The first disputed phrase—"a body having a high pressure inlet and defining a seat"—sets forth two characteristics of the body. '343 patent, col. 5, l. 50. The first—and undisputed by the parties—is that the body "ha[s] a high pressure inlet." The specification explains that the body has an "inlet port" through which the gas from the pressurized canister enters the regulator device. '343 patent, col. 3, ll. 50–52. The second—the one that is the subject of this first dispute—is that the body "defin[es] a seat." The parties proposed constructions are summarized in the chart below.

Pressure Specialist's Proposed Construction	Next Gen Manufacturing's Proposed Construction
"a body" is a structure of one or more pieces. "Defining a seat" means the body	"defining a seat" means to form, or outline, the seat to some degree;

¹ The Court's prior order and opinion set forth a tentative claim construction for this disputed language: "'body having a high pressure inlet and defining a seat' means a body having a high pressure inlet and forming a feature that is the point of entry of pressurized air into the regulator chamber and that interacts with the piston to stop the flow of air into the chamber." *Pressure Specialist*, 469 F. Supp. 3d at 870. In that same order, the Court noted its authority to modify this tentative construction as the case proceeds. *Id.* at 870–71; see *Sofamor Danek Grp., Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996) ("*Markman* does not obligate the trial judge to conclusively interpret claims at an early stage in a case. A trial court may exercise its discretion to interpret the claims at a time when the parties have presented a full picture of the claimed invention and prior art.").

delineates a structure (the seat) for a piston to sit upon. The seat may be a separate component of the body.	specifically, a body having a high pressure inlet and forming a feature that is the point of entry of pressurized air. 'Define' means to form or make distinct, clear, or detailed especially in outline, or to describe the exact limits of something. The terms 'defining a seat' describe a feature of the regulator body that is necessarily a part of, and integral to the body and function of the regulator.
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Claim 1 does not offer a definition of the seat, but the patent specification refers to it in two contexts. First, the seat is the point of "entry into the . . . chamber" for pressurized air. '343 patent, col. 3, l. 52. Second, the specification explains that the seat interacts with the "plug portion" of the piston to block flow of pressurized air into the regulator chamber. '343 patent, col. 3, ll. 57 – col. 4, l. 9. Thus, based on the claim language read in light of the specification, the "seat" is the feature that is the point of entry for pressurized air into the regulator chamber and that interacts with the piston to stop the flow of air into the chamber.

The parties offer competing definitions of "define." Pressure Specialist suggests that "define" means "to delineate" while Next Gen argues that "define" means "to form." Both of these definitions are consistent with the usage of the term in the patent, and frankly, there's almost no meaningful difference between the two proposed definitions. The common meaning of "to delineate" is to "indicate or represent . . .; to mark the outline of." *Delineate*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/delineate> (last visited Feb. 8, 2020) Similarly, "to form" is to "give a particular shape to." *Form*, Merriam-Webster, <https://www.merriam-webster.com/dictionary/form> (last visited Feb. 8, 2020)

Various forms of the word "define" appear throughout the '343 patent

specification and other limitations of claim 1. Read in context, each of these can mean either "forming" or "delineating". See, e.g., *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1074 (Fed. Cir. 2018) (construing claim term "extending between" by analyzing different derivations of the phrase "extend between" in the patent specification). For example, another limitation of claim 1 is "a bonnet engageable with the body to define a piston chamber," indicating that the bonnet and the body together form (or delineate) a piston chamber. In addition, the specification uses the phrase "the wall that defines the plug chamber" to describe the wall that delineates (or forms) a part of the plug chamber. '343 patent, col. 4, ll. 7-8. The specification also refers to "a gap. . . defined between the [piston] plug and the chamber wall," which is a reference to a discrete space delineated (or formed) by these two features of the regulator. *Id.*, col. 3, ll. 64-65.

In sum, the language of claim 1 and the patent specification support construing the term "defining" to mean either forming or delineating. But, as Pressure Specialist notes, the term "forming" is separately used in the '343 patent. See, e.g., '343 patent, col. 2, ll. 51-52 ("In a preferred embodiment, a guide sleeve is formed as part of the body"). Therefore, to avoid confusion, the Court will use "delineate" or "delineating" in its construction.

Turning to the full phrase "defining a seat," Next Gen contends this phrase describes "a feature of the regulator body that is necessarily a part of, and integral to the body and function of the regulator," i.e., the seat and body are the same component. Pressure Specialist argues that the seat may be a separate component of the body. The Court agrees with Pressure Specialist that there is nothing in the claim's terms that

requires the seat to be part of the body.

The same is true of the specification; it includes no language indicating that the body and seat are a single or integral structure. Rather, as Pressure Specialist notes, the specification supports in two spots the notion that the seat and body may not be a single component. First, the specification refers to "a main body," which suggests that other parts may be included in the body. '343 patent, col. 3, l. 31. And second, the specification makes clear the words "'a' or 'an' are to be taken to include...the plural." '343 patent, col. 5, ll. 32-33. So, while "a body" may refer to one piece, it may also be more than one piece.

In sum, the Court adopts Pressure Specialist's proposed construction with modifications. The term "[b]ody having a high pressure inlet and defining a seat" means a body having a high-pressure inlet and delineating a structure (the seat) for a piston to sit upon. The seat may be a separate component of the body.

B. "A bonnet engageable with the body to define a piston chamber within the body and the bonnet, the bonnet having a regulated gas outlet"

Pressure Specialist's Proposed Construction	Next Gen Manufacturing's Proposed Construction
"a bonnet" is a structure of one or more pieces, which maintains contact with the body to define a chamber or space for the piston, and which has a regulated outlet for gas leading to a downstream device.	<p>"bonnet" means a one-piece enclosure, covering, cowl/cowling or hood that necessarily threadedly engages with the regulator body. The 'bonnet', in addition to threadedly engaging with the body, defines (forms) a piston chamber, and necessarily has a regulated gas outlet.</p> <p>The regulator body and the bonnet threadedly engage one another to seal the regulator as a unit. Column 3 Line 32</p> <p>A piston chamber is 'defined' within the sealed together body and bonnet, and the piston assembly is disposed within the chamber. Column 3 Line 34</p>

The next term for construction is the following phrase: "[a] bonnet engageable with the body to define a piston chamber within the body and the bonnet, the bonnet having a regulated gas outlet." At the core of the parties' dispute are the meanings of the words "bonnet" and "engage." Next Gen contends that the bonnet must be a single piece and that it must "threadedly engage" with the regulator body. Pressure Specialist contends that a bonnet may be one piece or more and that it need only be "engageable."²

Next Gen primarily bases its proposed construction upon the patent's drawings and the structures of bonnets in commercial regulators. But "it is improper to read limitations from a preferred embodiment described in the specification . . . into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Cisco Sys., Inc. v. TQ Delta, LLC*, 928 F.3d 1359, 1364 (Fed. Cir. 2019) (quoting *Leibel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004)). Because the drawings typically describe a preferred embodiment, they do not by themselves trump other intrinsic evidence. See *Anchor Wall Sys., Inc. v. Rockwood*

² Pressure Specialist also claims that Next Gen is "estopped" from arguing that the bonnet in the HAYMKR product does not infringe on the '343 patent. Pressure Specialist Br. at 13–14. In Pressure Specialist's view, because Next Gen generally admitted that the GEN II product infringed on the '343 patent, it has waived any argument about infringement with regard to the HAYMKR product because the structures of the two bonnets are the same. *Id.*

This argument is unavailing, as this case lacks at least one of the relevant factors necessary to invoke the doctrine of judicial estoppel: Next Gen "must have prevailed on the basis of its earlier position 'so that judicial acceptance of an inconsistent position in a later proceeding would create the perception that either the first or the second court was misled.'" *Jarrard v. CDI Telecommunications, Inc.*, 408 F.3d 905, 914 (7th Cir. 2005). Given that Next Gen *admitted infringement* generally, it did not "prevail" on the basis of its position. See *id.*

Retaining Walls, Inc., 340 F.3d 1298, 1306–07 (Fed. Cir. 2003) ("[T]he mere fact that the patent drawings depict a particular embodiment of the patent does not operate to limit the claims to that specific configuration."). Thus, Next Gen's arguments related to Pressure Specialist's commercial products are unhelpful here.

The text of the claim does not limit the bonnet to one piece, and neither the word "threadedly" nor anything about threading appears in the claim. See '343 patent, col. 5, ll. 51-53. The specification does not include a one-piece limitation either. Further, as noted above, the specification makes clear that the words " 'a' or 'an' are to be taken to include . . . the plural." '343 patent, col. 5, ll. 32-33. So, just as "a body" may be one or more pieces, "a bonnet" may be one or more than one piece.

The specification says that the body and bonnet "threadedly engage one another to seal the regulator as a unit." '343 patent, col. 3, ll. 33-34. Next Gen argues that the Court must construe the claim in line with this and that the bonnet must do more than maintain contact. "There is a fine line between construing the claims in light of the specification and improperly importing a limitation from the specification into the claims." *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011). "In reviewing the intrinsic record to construe the claims, [the court must] strive to capture the scope of the actual invention, rather than strictly limit the scope of claims to disclosed embodiments or allow the claim language to become divorced from what the specification conveys is the invention." *Id.*

The Court sees nothing in the specification that suggests that the particular way in which the bonnet mechanically engages with the body was the "actual invention" of the '343 patent's inventor. And contrary to Next Gen's argument, if the claim does not

require engagement via threads, that is not the same as saying that the bonnet and body simply touch. The term "engageable," which is what the claim requires, means more than "in contact with"; its common meaning requires some form of mechanical connection. See, e.g., *Pfizer Inc. v. Ajix, Inc.*, No. CIVA3-03CV754 (JCH), 2005 WL 1828830, at *4 (D. Conn. Aug. 2, 2005) ("The term 'engageable,' then, would be commonly understood to mean 'able to engage' and to describe an object that is able to or has the capacity to fasten or to attach."), *aff'd*, 200 F. App'x 987 (Fed. Cir. 2006). In this regard, it is noteworthy that the same phrase in the specification cited by Next Gen contemplates that the regulator would be sealed as a unit. There is no indication that threading is the only way for the bonnet and body to engage in this way. The Court adopts the following construction: "A bonnet" is a structure of one or more pieces that connects with the body so that a seal is formed and that delineates a chamber or space for the piston, and which has a regulated outlet for gas.

Conclusion

The disputed claim terms are construed in accordance with the conclusions set forth in this Memorandum Opinion and Order. The case is set for a telephone status hearing on February 17, 2021 at 9:40 a.m. to set any necessary schedules for further proceedings, using call-in number 888-684-8852, access code 746-1053. Counsel should wait for the case to be called before announcing themselves. The parties are to confer and are to file by February 16, 2021 a joint status report including a proposed schedule.

Date: February 9, 2021


MATTHEW F. KENNELLY
United States District Judge